

REMARKS

Favorable reconsideration of the application is respectfully requested in light of the amendments and remarks herein.

Upon entry of this amendment, claims 1-107 will be pending. By this amendment, claims 1, 28, 55, and 82 have been amended. No new matter has been added.

§103 Rejection of Claims 1-107

In Section 3 of the Office Action, claims 1-107 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Traw *et al.* (U.S. Patent No. 6,542,610; hereinafter referred to as “Traw”) in view of Nguyen (U.S. Patent No. 5,689,566).

In the Background section of the Specification, it was disclosed that “systems in which a plurality of AV apparatuses are connected via a digital interface at homes for transmitting and recording digital data such as music information, video information or the like are becoming popular. For example, in an apparatus such as a video camera, a DVD player or the like having an interface of the IEEE ... 1394 high-performance serial bus ..., since data can be recorded with high fidelity, it is necessary to prevent data from being illegally copied.” *Specification, page 1, lines 12 to 19*. “For the purpose of protecting copyright in such a system, various authentication methods have been proposed. For an authentication protocol used for these authentication methods, an encryption algorithm is often used.” *Specification, page 2, lines 10 to 12*. “Meanwhile, when transmitting music data between apparatuses, for example, if transmission is stopped during the transmission of the music data or if the quantity of data which can be transmitted is extremely reduced, it becomes impossible for the receiving side to obtain data required for playback and the music might be interrupted. Therefore, it is necessary to transmit

music data in a state where a band of a certain extent is secured.” *Specification, page 2, lines 13 to 18.*

To address the above-stated problem embodiments of the present invention provide systems, methods, and apparatus to secure a transmission band of certain extent, e.g., substantially sufficient for transporting such data as music data.

For example, apparatus claim 1, as presented herein, includes:

An information processing system comprising:

a first information processing apparatus comprising

an interface having an isochronous transmission mode in which a transmission band is ensured, and

a transmission control means for controlling encrypted data in the transmission band,

wherein the encrypted data is encrypted using an encryption key Kiso and then transmitted in the isochronous transmission mode via the interface,

wherein the transmission control means executes, prior to data transmission, a protocol for performing mutual authentication and sharing a plurality of encryption keys with another information processing apparatus to which the encrypted data is to be transmitted, and from which an authentication request is to be received, and

wherein the first information processing apparatus encrypts the data following said authentication request from the other information processing apparatus; and

a second information processing apparatus comprising

an interface having the isochronous transmission mode in which a transmission band is ensured and

a receiving control means for controlling reception of coded data received by the apparatus from another information processing apparatus,

wherein the coded data which is received in the isochronous transmission mode via the interface is decoded using an encryption key K'iso,

wherein the receiving control means executes, prior to data reception, a protocol for performing mutual authentication and sharing a plurality of encryption keys with another information processing apparatus from which the coded data is to be received, and to which an authentication request is to be transmitted, and

wherein the second information processing apparatus decodes the data following an authentication request to the other information processing apparatus.

(emphasis added)

Accordingly, one aspect of claim 1 comprises at least *a first information processing apparatus* comprising *an interface* having an isochronous transmission mode in which a transmission band is ensured, and *a transmission control means* for controlling encrypted data in the transmission band, wherein the encrypted data is encrypted using an encryption key Kiso and then transmitted in the isochronous transmission mode via the interface; and *a second information processing apparatus* comprising *an interface* having the isochronous transmission mode in which a transmission band is ensured and *a receiving control means* for controlling reception of coded data received by the apparatus from another information processing apparatus. The Specification discloses an embodiment of the present invention where “[t]he input/output interface 16 has ... a first encoder 16B for encrypting the contents (music data) ... using an encryption key Kiso by a first encryption method and thus creating isochronous packets.” *Specification, page 27, lines 14 to 19. See also Fig. 9.* Embodiments of the present invention further provide a “data receiving apparatus 20 [that] decodes the music data transmitted by isochronous transmission.” *Specification, page 35, lines 6 to 7.*

In contrast, Traw does not teach or suggest a transmission control means for encrypting data using an encryption key Kiso and then transmitting the data in the isochronous transmission mode via the interface. Traw therefore fails to address all the limitations of claim 1.

Nguyen addresses a different problem, and was cited merely for teaching the use of various levels of encryption in packets pertaining to different types of LANs. Therefore, it is maintained that Traw and Nguyen, individually or in combination, fail to teach all the limitations of claim 1.

Based on the foregoing discussion, claim 1 should be allowable over Traw and Nguyen. Further, since independent claims 28, 55, and 82 parallel claim 1 and recite similar limitations as recited therein, claims 28, 55, and 82 should also be allowable over Traw and Nguyen. Furthermore, since claims 2-27, 29-54, 56-81, and 83-107 depend respectively from claims 28, 55, and 82, claims 2-27, 29-54, 56-81, and 83-107 should also be allowable over Traw and Nguyen.

Accordingly, it is submitted that the rejection of claims 1-107 based upon 35 U.S.C. §103(a) has been overcome by the present remarks and withdrawal thereof is respectfully requested.

Conclusion

In view of the foregoing, entry of this amendment, and the allowance of this application with claims 1-107 are respectfully solicited.

In regard to the claims amended herein and throughout the prosecution of this application, it is submitted that these claims, as originally presented, are patentably distinct over the prior art of record, and that these claims were in full compliance with the requirements of 35

U.S.C. §112. Changes that have been made to these claims were not made for the purpose of patentability within the meaning of 35 U.S.C. §§101, 102, 103 or 112. Rather, these changes were made simply for clarification and to round out the scope of protection to which Applicant is entitled.

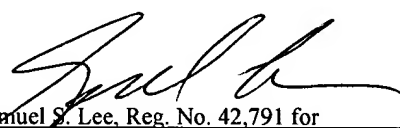
In the event that additional cooperation in this case may be helpful to complete its prosecution, the Examiner is cordially invited to contact Applicant's representative at the telephone number written below.

The Commissioner is hereby authorized to charge any insufficient fees or credit any overpayment associated with the above-identified application to Deposit Account 50-0320.

Respectfully submitted,

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